

# SWG 100 BIOGAS

## LANDFILL & BIOGAS ANALYSIS

NOW  
UL LISTED

For optimizing production,  
performance and reporting

PROFIBUS

MODBUS

ETHERNET

ALARM

SD CARD

RS485

4-20 mA

Up to 10  
sites monitoring  
via  
Time Sharing



O<sub>2</sub>

CO<sub>2</sub>

CH<sub>4</sub>

H<sub>2</sub>S

CO

H<sub>2</sub>

# THE COMPLETE SOLUTION ...



Measuring CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>S (high & low ranges)  
H<sub>2</sub> and calculated N<sub>2</sub> and calorific values

- Continuous or semi-continuous operation
- Efficient gas prep provides fast and reliable measurements
- Sampling from low suction to high pressure
- Up to 10 sites monitoring via time sharing
- Fresh air auto zero
- Interfaces - 4 to 20 mA, RS485 Modbus, Ethernet Profibus, alarm relays
- Safety: Monitored ventilation fan, gas flow restrictor, optional %LEL detector and flame arrester
- Fast & easy installation
- Auto calibration with optional second port
- 50:1 dilution system - allowing up to 100,000 ppm H<sub>2</sub>S

Up to 10 switching  
biogas inlets (time sharing)

Vent outlet

Display

Keypad

Calibration gas inlet

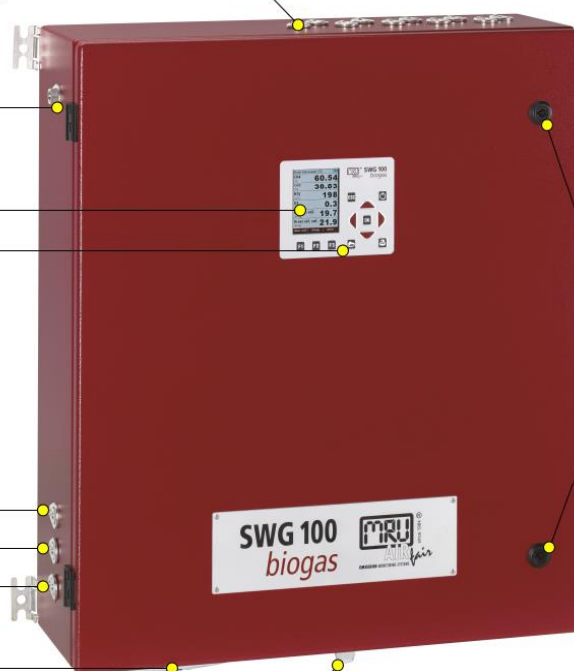
Zero gas inlet

Condensate outlet

Cabinet ventilation

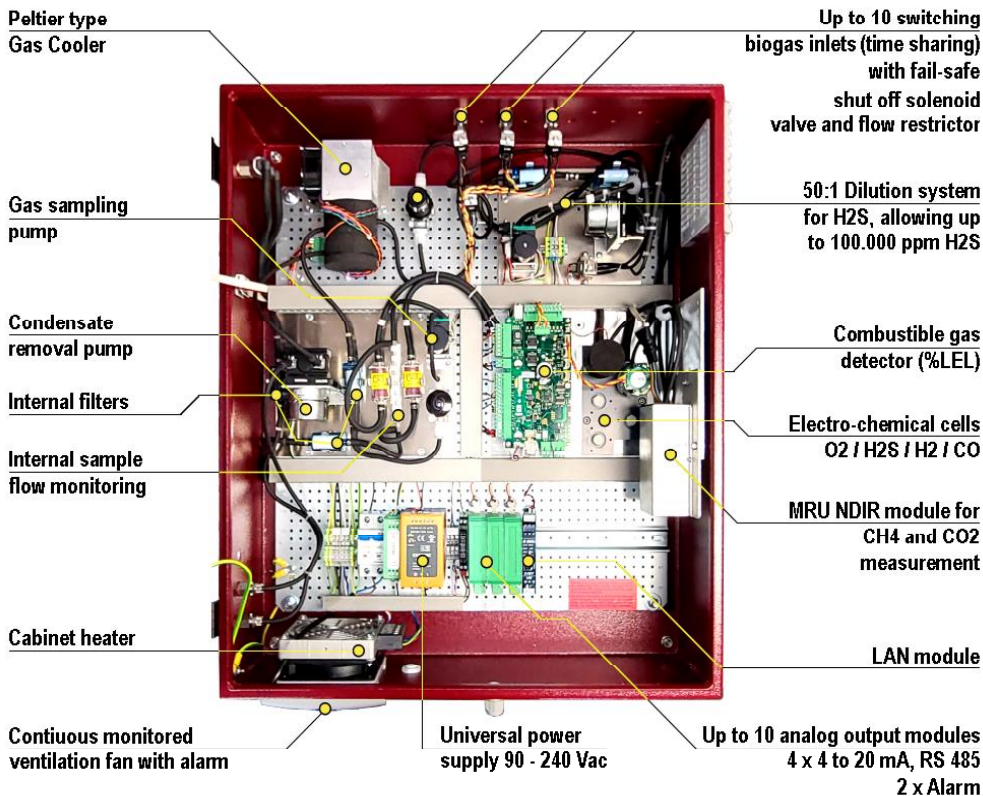
Inlet cable gland

Cabinet locks



# THE IDEAL SOLUTION FOR ...

- Landfill sites
- Anaerobic digesters
- CHP / WTE cogeneration engines
- Municipal or industrial waste water treatment plants
- Flare inlets / outlets
- CPG Production
- Food or animal waste process plants
- Coal bed methane sites
- RNG plants





## TECHNICAL SPECIFICATIONS

Measurement components			Measuring range	Measuring method
CH4	Methane		0 – 100 %	NDIR
CO2	Carbon dioxide		0 – 100 %	NDIR
O2	Oxygen		0 – 25 %	electrochemical, continuous
H2S	Hydrogen sulfide	H2 immune	0 - 50 / 250ppm	electrochemical, discontinuous
H2S	Hydrogen sulfide		0 - 200 / 1,000ppm	electrochemical, discontinuous
H2S	Hydrogen sulfide		0 - 2,000ppm / 4,000ppm	electrochemical, discontinuous
H2S	Hydrogen sulfide	H2 immune	0 - 2,000ppm / 5,000ppm	electrochemical, discontinuous
H2	Hydrogen		0 - 1,000ppm	electrochemical, discontinuous
CO	Carbon monoxide		0 - 4,000ppm / 20,000ppm	electrochemical, discontinuous

### H2S dilution systems 50:1

for landfills and other high H2S applications, not only has the range been extended, but additionally, high resiliency sensors can be used providing better accuracy and stability, especially in difficult applications such as landfills, dairy digesters, etc.

Calculated component	Calorific value: 0 – 50 MJ/m3; MJ/kg
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HMI human machine interface	3.5" TFT color display Backlit keyboard, password protected operation 4x analog output 4-20 mA, floating, max. load 500R 2 alarm relays, potential free contacts 24 Vdc/5 A RS485 digital interface (Modbus RTU) DIN-rail RS485 / Profibus converter
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System safety components	Monitored cabinet ventilation fan Stainless steel flow restrictor orifice Sample gas shut-down solenoid valve LEL (CH4) monitoring inside cabinet
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Sample preparation	Stainless steel gas fittings with 1/8" ID threads Electric gas cooler Teflon particulate filter, internal Viton hosing Monitored and regulated sample flow 40...60 l/h Sample inlet pressure: -40 inH2O to +120 inH2O (-100 mbar to +300 mbar) <b>Sample venting: atmosphere pressure</b>
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Cabinet dimensions	Aluminum with anti-corrosive structural painting 27.55" x 23.61" x 8.26" (700 x 600 x 210 mm) ( H x W x D ) for wall or rack mounting
Weight / Protection	55lbs (25kg) / IP54
Ambient temperature	41°F ...113°F (+5°C...+45°C) or -4°F ...113°F (-20°C...+45°C) with cabinet heater
Installation site	Indoor or outdoor (rain and sun shade is mandatory user scope of supply)
Cabinet conditioning	Continuous, monitored fan ventilation Cabinet heater 200 W (option)

Power supply	Universal 90 - 240 Vac / 47 - 63 Hz / 90 W (300 W with cabinet heater)
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Data subject to change without notice

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